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UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
PADMANABHAN, KAVITA

ART UNIT	PAPER NUMBER
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SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>20 November 2006</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>3-12,15-24 and 26-28</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>3-12,15-24 and 26-28</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>26 May 2006</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

1.   Claims 1, 2, 13, 14, and 25 have been canceled.

2.   Claims 3-8, 10, 12, 15-17, 19, 20, 22, and 24 have been amended.

3.   Claims 26-28 have been added.

4.   Claims 3-12, 15-24, and 26-28 are pending.

5.   Claims 3-12, 15-24, and 26-28 are rejected.

Continued Examination Under 37 CFR 1.114

6.   A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e)

has been timely paid, the finality of the previous Office action has been withdrawn pursuant to

37 CFR 1.114. Applicant's submission filed on 11/20/06 has been entered.

Claim Objections

7.   **Claims 26-28** are objected to because of the following informalities:

In regards to **claim 26**, it is suggested that the applicant rephrase section (a) of the claim

to recite "to identify, in response to input data entered by a user, one or more events…".

In regards to **claim 27**, it is suggested that the applicant rephrase section (a) of the claim

to recite "identifying, in response to input data entered by a user, one or more events…",

rephrase section (b) of the claim to recite "classifying said identified events…", rephrase section

(c) of the claim to recite "organizing separate storage volumes…", rephrase section (d) of the

claim to recite "using said data structure...", and rephrase section (e) of the claim to recite

"providing said retrieved output data...".

In regards to **claim 27**, it is suggested that the last line of the claim, which recites "of said

database by said identified activities, events and attributes thereof", be deleted as it appears to be

a typographical error.

In regards to **claim 28**, it is suggested that the applicant denote the 1st limitation with an

"(a)" to be consistent with the other independent claims. It is further suggested that the applicant

rephrase the first limitation of the claim to recite "one or more first program instructions that

control said computer to identify, in response to input data entered by a user, one or more

events...".

In regards to **claims 26-28**, it is suggested that the phrase "access of said database" be

changed to recite --access to said database-- in section (d) of the claims.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

8.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9.   **Claims 3-12, 15-24, and 26-28** rejected under 35 U.S.C. 112, first paragraph, as failing

to comply with the written description requirement. The claim(s) contains subject matter which

was not described in the specification in such a way as to reasonably convey to one skilled in the

relevant art that the inventor(s), at the time the application was filed, had possession of the

claimed invention.

With respect to **claims 26-28**, there does not appear to be support in the applicant's specification for "collecting with a monitor said *output data* of an industrial process and providing said *output data* to said computer" or for the other recitations of output data throughout the claims. Furthermore, while the applicant has directed the examiner to portions of the specification that allegedly contain support for the newly amended limitations, such support is not readily found therein.

Also with respect to **claims 26-28**, there does not appear to be support in the applicant's specification for the limitation "to organize *separate storage volumes of said database* for said classified attribute types". Furthermore, while the applicant has directed the examiner to portions of the specification that allegedly contain support for the newly amended limitations, such support is not readily found therein.

With respect to **claims 3 and 15**, there does not appear to be support in the applicant's specification for the limitation "another storage volume of said database is organized for a first one of said identified events". The applicant has also not directed the examiner to portions of the applicant's original specification that might provide support for such a limitation.

With respect to **claims 7 and 19**, there does not appear to be support in the applicant's specification for the limitation "one defined *attribute type corresponding to a first one of said storage volumes* are static". The applicant has also not directed the examiner to portions of the applicant's original specification that might provide support for such a limitation.

10.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11.   **Claims 3-12, 15-24, and 26-28** are rejected under 35 U.S.C. 112, second paragraph, as

being indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

In regards to **claims 26-28**, the phrase "attributes thereof", recited in sections (a) and (d)

of the claims, renders the claims unclear, in that it is not clear what the term "thereof" is referring

to. In other words, it is unclear whether the applicant is intending to claim attributes of the

events and/or activities, attributes of the industrial process, or even attributes of the database.

Claims 26-28 recite the limitation "said identified events, activities and attributes" in

section (b) of the claims. There is insufficient antecedent basis for this limitation in the claim

since section (a) recites "events and/or activities".

In regards to **claims 26-28**, section (d) of the claim, reciting "to use said data structure in

a manner that permits access of said database by said identified activities, events and attributes

thereof to store said output data in said storage volumes according to said data structure and in

response to a request to retrieve that output data that corresponds to at least one of said identified

activities, events or attributes that is includes in said request" renders the claims unclear. It is

unclear how the data structure is used to permit access to the database by activities, events, and

attributes to store data in response to a request to retrieve data.

Claims 3 and 15 recite the limitation "another storage volume" in line 2 of the claims.

There is insufficient antecedent basis for this limitation in the claims, since the claims from

which these claims depend do not recite a first storage volume.

Claims 4 and 16 recite the limitation "wherein at least one attribute of a plurality of said events and/or activities is common to at least one of said defined attribute types". It is unclear how one attribute could be common to one attribute type.

The examiner will apply prior art to this claim as best understood in light of the above rejections.

Claim Rejections - 35 USC § 102

12.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13.   **Claims 3-12, 15-24, and 26-28** are rejected under 35 U.S.C. 102(b) as being anticipated by **Goldring** (US 5,613,113).

In regards to **claim 26, Goldring** teaches a method for using a computer to define, store and retrieve output data of an industrial process, said method comprising:

collecting with a monitor said output data of said industrial process and providing said output data to said computer **(Goldring; col. 1, lines 38-41; col. 3, lines 27-31 –** *"computer process that involves a sequence of events would be a commercial order filling or banking system"* **and** *"correlate events in an activity log with time series data of interest"* **– constitutes collecting and operating on data of an industrial process in that the data pertains to the "commercial industry" or the "banking industry.");**

operating said computer with a program

(a) in response to input data entered by a user to identify one or more events and/or activities and one or more attributes thereof of said industrial process **(Goldring; col. 3, lines 36-58; col. 5, lines 53-56 –** *"identifying the recorded events having the characteristic of interest"* **and** *"user can interactively communicate with the data base manager"***)**;

(b) to classify said identified events, activities and attributes according to a data structure that comprises at least one event type or at least one activity type and a plurality of attribute types **(Goldring; col. 8, line 60 – col. 9, line 14; Fig. 3 – figure 3 shows a data structure having event types, such as update events, and a plurality of attribute types, such as event name and RBA)**;

(c) to organize separate storage volumes of said database for said classified attribute types **(Goldring; col. 5, lines 2-23 –** *"the mainframe computer 12 includes a data base comprising a plurality of data tables 26 including user tables 28 defined by the users"***)**;

(d) to use said data structure in a manner that permits access of said database by said identified activities, events and attributes thereof to store said output data in said storage volumes according to said data structure and in response to a request to retrieve that output data that corresponds to at least one of said identified activities, events or attributes that is included in said request **(Goldring; col. 5, lines 2-23, 48-59; col. 6, lines 18-20; col. 9, lines 52-60; Fig. 3 –** *"If the activity log is later consulted, the time stamp values can be located with their corresponding transaction sequence numbers and accessed by users."* **- events**

and attributes are stored in the database tables and are retrieved based on user requests); and

(e) to provide said retrieved output data to a client device **(Goldring; col. 5, lines 48-59; col. 9, lines 52-60; Fig. 3 – *"The data base manager 30, for example, can comprise a software process that operates in accordance with Structures Query Language (SQL) requests"*, *"provides an interface for the users. A user can interactively communicate with the data base manager"*, and *"when a user requests a snapshot copy"* – data is retrieved from database and provided to user)**.

In regards to **claim 3**, **Goldring** teaches the method of claim 26, wherein said data structure further comprises a time stamp **(Goldring; Fig. 3)**, wherein another storage volume of said database is organized for a first one of said identified events, and wherein said other storage volume is accessed according to said time stamp for storage and retrieval of said attributes corresponding to said first event **(Goldring; col. 5, lines 40-44; col. 6, lines 18-20; Fig. 3)**.

In regards to **claim 4**, **Goldring** teaches the method of claim 26, wherein at least one attribute of a plurality of said events and/or activities is common to at least one of said defined attribute types, and wherein said at least one storage volume of said database is allocated to all of said common attributes **(Goldring; col. 8, line 60 – col. 9, line 14; Fig. 3; Fig. 2, reference characters 25, 32)**.

In regards to **claim 5**, **Goldring** teaches the method of claim 26, further comprising

compressing said output data which is stored in a first one of said storage volumes according to

identity of values of said output data of said attributes of consecutive events and/or activities that

have been allocated for storage in said first one of said storage volumes **(Goldring; col. 7, lines**

20-61 – data of activity log is compressed and placed in the system tables based on the

values of the event attributes).

In regards to **claim 6**, **Goldring** teaches the method of claim 5, wherein said data

structure further comprises a time stamp **(Goldring; Fig. 3)**, and wherein said first one of said

storage volumes is accessed according to said time stamp for storage and/or retrieval of said

values of said output data, and wherein said values of said output data of a first event are

retrieved from said first storage volume by using a value of a first time stamp for said first event

or of a second time stamp value of a second one of said events that is earlier in time than said

first time stamp value **(Goldring; col. 5, lines 40-44; col. 6, lines 18-20; Fig. 3)**.

In regards to **claim 7**, **Goldring** teaches the method of claim 26, wherein said attributes

of at least one defined attribute type corresponding to a first one of said storage volumes are

static, and further comprising optimizing data storage in said first one of said storage volumes by

omitting storage of a static value **(Goldring; col. 5, lines 7-16; col. 5, line 67 – col. 6, line 6 –**

doesn't store the other attributes related to the user table that changed – only the update

and the sequence number, because the others didn't change, and are therefore static).

In regards to **claim 8**, **Goldring** teaches the method of claim 26, wherein said industrial

process is one of a plurality of industrial processes, and wherein said program operates said

computer each of said plurality of processes using said data structure **(Goldring; col. 1, lines 25-**

52; col. 6, lines 26-29).

In regards to **claim 9**, **Goldring** teaches the method of claim 8, wherein at least two of

said plurality of industrial processes are different from one another **(Goldring; col. 1, lines 25-**

52; col. 6, lines 26-29).

In regards to **claim 10**, **Goldring** teaches the method of claim 26, further comprising

presenting data values of different ones of said events and/or activities that are defined as

different event and/or activity types in any one of a plurality of formats to said client device

(Goldring; col. 6, lines 18-20; col. 5, lines 48-59; col. 9, lines 52-60; Fig. 3).

In regards to **claim 11**, **Goldring** teaches the method of claim 10, wherein said plurality

of formats are selected from the group consisting of: row format, column format and chart format

(Goldring; Fig. 3).

In regards to **claim 12**, **Goldring** teaches the method of claim 26, further comprising

developing a map structure for mapping diverse external names of said attributes and/or field

contents thereof to a common internal attribute name and/or field content **(Goldring; col. 5, lines**

30-31; col. 5, line 59 – col. 6, line 6; col. 6, lines 54-65; Fig. 3; Fig. 4; – updates, regardless of

what type or how they are referred to externally, by a user for example, are internally

stored as update operations; also, a table constitutes a map structure).

Claims 27 and 15-24 are rejected with the same citations given for claims 26 and 3-12,

respectively.

Claim 28 is rejected with the same citations given for claim 26.

Response to Amendment

14.   Applicant's amendment filed 11/20/06 with respect to the specification and the drawings

have been fully considered. The corresponding objections to the specification and the drawings

have been withdrawn accordingly.

15.   Applicant's amendments filed 11/20/06 with respect to the 35 U.S.C. 101 rejections have

been fully considered. The corresponding rejections have been withdrawn accordingly.

Response to Arguments

16.   Applicant's arguments filed 11/20/06 with respect to the prior art rejections have been

fully considered but they are not persuasive.

Applicant argues at 12 of applicant's remarks that Goldring does not teach the

combination of the monitor that collects the output data of an industrial process and the activity,

event and attribute input data entered by a user. The examiner respectfully disagrees and refers

the applicant to the rejections above. The examiner asserts that Goldring does indeed teach

collecting with a monitor said output data of said industrial process and providing said output

data to said computer (Goldring; col. 1, lines 38-41; col. 3, lines 27-31). Goldring teaches

recording activity, event, and attribute data from an industrial process, for example, the

"commercial industry" or the "banking industry", which involves monitoring and collecting the

data in order to record it and organize it in a database.

Conclusion

17.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to **Kavita Padmanabhan** whose telephone number is **571-272-**

8352. The examiner can normally be reached on Monday-Friday, 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Apu Mofiz can be reached on 571-272-4080. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

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like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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